AMENDMENTS TO THE CLAIMS

Claims 1-27 (Canceled)

28. (New) A transgenic mouse whose genome comprises a heterozygous disruption in a CASH gene, wherein the transgenic mouse exhibits increased sensitivity to pain and increased susceptibility to seizure, relative to a wild-type mouse.

29. (New) The transgenic mouse of claim 28, wherein the transgenic mouse responds more quickly to a thermal stimulus than a wild-type mouse.

30. (New) The transgenic mouse of claim 28, wherein the transgenic mouse requires a lower dose of metrazol to reach characteristic seizure stages than does a wild-type mouse.

31. (New) A method of producing a transgenic mouse whose genome comprises a disruption in a CASH gene, the method comprising:

a) introducing into a mouse embryonic stem cell a targeting construct capable of disrupting a CASH gene;

b) introducing the mouse embryonic stem cell into a blastocyst;

c) implanting the resulting blastocyst into a pseudopregnant mouse, wherein said pseudopregnant mouse gives birth to a chimeric mouse; and

d) breeding the chimeric mouse to produce the transgenic mouse whose genome comprises a heterozygous disruption in the CASH gene;

wherein the transgenic mouse exhibits increased sensitivity to pain and increased susceptibility to seizure, relative to a wild-type mouse.

32. (New) The transgenic mouse produced by the method of claim 31.

33. (New) A method of identifying an agent capable of modulating pain sensitivity, the method comprising:

a) administering a putative agent to the transgenic mouse of claim 28; and

b) determining whether the putative agent has an effect on pain sensitivity in the transgenic mouse.

34. (New) A method of identifying an agent capable of modulating seizure susceptibility, the method comprising:

a) administering a putative agent to the transgenic mouse of claim 28; and

b) determining whether the putative agent has an effect on susceptibility to seizure in the transgenic mouse.